GEOLOGICAL NOTES.

[The bearings refer to the magnetic meridian.]

61–61. *The section across the Huronian rocks seen on the Pic River, shows a variety of dark grey, hard, siliceous and argillaceous slates, dark green massive and schistose diorites, crystalline reddish diorites, grey and greenish fine grained quartzose mica-schists, and fine grained hard grey imperfect gneisses. The general strike is south-westward.*

62. *Dark green diorite and slate-conglomerate, with a hill to the northward consisting partly of grey and partly of red fine grained granite.*

63–63. *The Huronian rocks exposed along the Black River consist of dark greyish green and reddish diorites (some of them porphyritic), red and grey granites, conglomerates, fine grained mica-schists, diorite, siliceous, argillaceous, hornblendic, chloritic, felspathic and epidotic schists and imperfect gneisses, similar to those on the Pic River. The general strike is W. S. W.*

64. *Greyish and reddish gneiss, occasionally interstratified with bands of dark hornblendic schist and very light grey gneiss.*

65. *Fine grained dark green hornblendic schists, having the same strike as the adjacent gneiss.*

66–66. *Hornblendic, siliceous and chloritic schists. Strike, N. N. W.*

67. *Huronian schists with stykes of granite and trap, and veins of calcspar and quartz containing yellow and siliceous sulphurets of copper, iron pyrites, blende, galena and wolybdenite.*

68. *Michipicoten Island and the extremity of Cape Gargantua consist of amygdaloids, conglomerates, sandstones, volcanic tufas, etc., belonging to the Keweenawan (Cambrian) series.*

69. *Light red granite of medium textur. [illegible] on the east by hornblende schist.*

70. *Soft green slate holding layers and veins of [illegible] protection of reddish granite.*

71. *Greyish slaty diorite with thick beds of reddish siliceous rock; also impure hematite interstratified with grey siliceous layers.*

72. *Dark coloured hornblendic mica-schist.*

73. *Massive green dioritic schist.*

74. *Massive and slaty diorites and grey calcareous schists with traces of copper*

75. *Massive red and grey granite of medium texture and somewhat variable character.*

76. *Cliff 600 feet high of green slaty diorite with reticulating strings of calcspar and quartz.*

77. *Glossy green mica and hornblende schists, greenish-grey slaty quartzite, massive crystalline green diorite, dioritic schist, soft calcareous grey mica-schist and brittle reddish yellow siliceous or chorty schists. At the N. W. extremity of Otter Island a low patch of thinly-bedded red and grey sandstone rests unconformably upon these rocks.*

78. *Small patches of red shaly volcanic breccia resting upon gneiss.*

79. *Massive, even and rather finely grained pinkish-grey granite.*

80. *Green chloritic, grey felsitic and fine grained mica-schists, with diorites and gneiss.*

81. *Red and grey syenitic granites.*

82. *Chloritic and dioritic schists with masses of flesh-coloured granite and syenite.*

83. *Fine grained massive soft greenish-grey micaceous schist.*

84. *Green hornblendic schist with pebbles, chloritic and dioritic schists.*

85. *Narrow bands classed as Huronian, and consisting of micaceous, hornblendic, dioritic, siliceous and felsitic schists.*

86. *Dark grey siliceous slate and dark green finely granular hornblende-schist, with greyish mica-schist towards the gneiss on either side.*

87. *Siliceous felsitic and micaceous schists, with quartzites and diorites.*

88. *Dark hornblende and mica-schists with large veins of light-coloured granite running with the strike.*

89. *Beds of lignite, from 1 to 6 feet in thickness in boulder clay.* (See p. 4c. Report for 1877-78.)

90. *Gypsum in the N. W. bank begins at 8 miles, and is best seen in the S. E. bank at 16 miles below this point. It is about 10 feet thick, and is associated with earthy greyish and buff-coloured magnesian limestone and red [illegible] shale of Devonian age.*

91. *Siliceous hornblendic schists.*

92. *Red and reddish grey syenitic granite with patches of grey amygdaloid, containing calcspar, fluorspar and epidote.*

93. *Rather dark-coloured hornblendic schists with a general westward strike.*

94. *Lead and copper ores discovered by Mr. Bell in veins in Huronian rocks.*

95. *Huronian rocks striking north of east, probably near their junction with the Laurentian.*

Geological Survey of Canada.

Alfred R. C. Selwyn LL.D.F.R.S.&c.Director.

MAP

SHEWING APPROXIMATELY THE GEOLOGY

OF THE

BASIN OF MOOSE RIVER

AND ADJACENT COUNTRY.

TO ILLUSTRATE DR. BELL'S REPORTS OF

1875, 1877, 1881.

Scale 8 Miles to 1 Inch.

0 4 8 16 24 32 40

DRAWN BY L. N. RICHARD B. A. Sc.

1883.

SCALE OF COLOURS

A	Gr.	B
LAURENTIAN.	GRANITE.	HURONIAN.

Grey and drab limestones and buff dolomites with shaley and earthy bands, also deposits of gypsum and clay-ironstone.

Grey and drab limestones and [illegible] deposit of clay-ironstone.

Range of the Devonian Limestones.

GEOLOGICAL NOTES.

[The Bearings refer to the Magnetic Meridian.]

1. *Felsites, generally ribboned purple and green; some parts grey and siliceous. The general strike is parallel to the course of the East Branch of the Eastmain River. At the outlet of White Beaver Lake it is associated with a beautiful olive-coloured brecciated chert.*

2. *Quartzite, mostly light grey, and in places approaching the character of smaltz, while in others they are full of pebbles. Some portions are brownish, some greenish, and others dark grey. At White Beaver Lake the surfaces of the beds occasionally show ripple-marks.*

3. *Massive crystalline greenish grey diorite, mostly of dark shades.*

4. *Dark greenish grey argillaceous slate-conglomerate; pebbles mostly of red syenitic granite, with some of white quartz and green schists.*

5. *Dark hornblende schists, full of veins and masses of grey syenatite; all cut by veins of siliceous quartz.*

6. *Great alternating masses of grey quartzite and dark-coloured diorite, both of which are frequently of a coarse conglomeratic character, the pebbles consisting of syenitic granite, quartzite, and various slates of the Huronian series, mostly rounded and crowded together in great lumps. These massive beds are interstratified with strata of [illegible]. The dip is from E. to E. N. E., at an angle of about 45°.*

7. *Belt of quartz veins with copper pyrites and crystalline specular iron. Run N. 75° W.*

8. *Red and grey syenitic granite, mostly coarse in texture.*

9. *Dark hornblendic and siliceous schists.*

10. *Greenish grey dioritic slate-conglomerate with smooth rounded pebbles of syenitic granite.*

11. *Bedded reddish quartzites, mostly fine grained and interstratified with greenish siliceous slates.*

12. *Greenish and greyish argillaceous and siliceous slates.*

13. *Dark green serpentine with crystolite and calcspar, and containing chromite.*

14. *Massive light green felsitic volcanic ash with dark and light specks.*

15. *Soft greenish grey magnesian rock, rudely stratified and thickly intersected in all directions by calcspar strings.*

16. *Hornblendic and dioritic schists dipping south-eastward at high angles.*

17. *Greenish grey quartzite, partly massive and partly schistose. They hold transparent grains of quartz.*

18. *Dykes of crystalline dark greenish grey diorite.*

19. *Dark grey hornblende schist. Strike, S. 75° E., angle northward, 65°.*

20. *Grey micaceous mica-schist, chloritic and greenish grey siliceous and dolomitic schists, with rusty surfaces and cut by quartz veins.*

21. *Siliceous grey slate, running W. N. W.*

22. *Fine grained greenish grey quartzite, followed, half a mile to the N., by bluish grey clay-slate, and further N. by more quartzite.*

23. *Stratified greenish grey crystalline somewhat schistose diorite, cut by irregular quartz and calcspar veins. The dip is northward at an angle of 50°.*

24. *Grey siliceous slate, grey felsite and dark bluish grey clay-slate. Dip N., angle 60° to 70°.*

25. *Green and grey micaceous chloritoid and talcoid schists. Dip N., angle 60°. Cut by a great dyke running N. and S.*

26. *Massive grey semi-crystalline stentite, holding grains of specular iron, and cut by small veins of bitter-spar.*

27–27. *Massive and slaty greenish grey diorites.*

28. *Dark grey quartzite and massive light greenish grey siliceous schist. Strike, N. 75° to 80° W.*

29. *Hard greenish grey slaty diorite, cut by a great dyke, running N. and S.*

30. *Soft greenish grey calcareous talcoid schists. Strike N. 55° W.*

31. *Grey volcanic ash, followed by greyish green chloritic and dioritic schists. Dip E. N. E.*

32. *Dark greenish grey hornblendic schist, with some chloritic schist. Strike, N. 55° to N. 70° W.*

33–33. *Laurentian gneiss begins at the foot of Davis' Rapid and is found all along the river to the foot of the Long Portage, which appears to mark the southern boundary of the Devonian area.*

34. *Soft dark marly shale.*

35. *Grey and buff fossiliferous limestones.*

36. *Soft yellowish and reddish grey porous limestone.*

37. *Chlorito-micaceous and calcareous marl, with green spots.*

38. *Dark grey crystalline diorite, cut by dykes of dark, compact diorite.*

39. *Greenish calcareous [illegible] and hornblendic schists.*

40–40. *Tender grey micaceous schists with rusty yearings.*

41. *Fine grained greenish grey siliceous diorite.*

42. *Grey slightly calcareous argillaceous schists, with thin yearings of calcspar in the joints.*

43. *Unstratified greyish green diorite with disseminated grains of iron pyrites, and in some places holding cavities filled with calcspar and white quartz.*

44. *Dark green serpentine weathering dull white, strongly magnetic and containing grains of chromic iron.*

45. *Micaceous, hornblendic, chloritic and dioritic schists, quartzites and diorites.*

46. *Impure, hard, close-grained grey limestones.*

47. *Obscurely stratified dark greenish grey dioritic schists.*

48. *Hill 600 feet high, of close-grained grey quartzites.*

49. *Conglomerate with quartzose, felsitic and slaty matrix with rounded pebbles of syenite, diorite, chert and white quartz.*

50. *Hornblende and mica schists.*

51. *Micaceous hornblendic, chloritic and stentitic schists, associated with grey massive stentite, quartzite, magnetic pyrites, iron ore and mica.*

52. *Very light grey and reddish granites associated with dark syenitic granite holding much hornblende.*

53. *Greyish green hornblende schist conformable with the gneiss to the east of it.*

54. *Slaty diorites, with layers of ribboned quartzite, jasper and magnetic iron.*

55. *Bed of greyish felsitic rock with copper and iron pyrites just below the 7th portage from Lake Temiscamang.*

56. *Soft chloritic schists with diorites.*

57. *Soft greenish grey stentite rock.*

58. *Hard dark grey siliceous mica-schist.*

59. *Boulder conglomerate overlaid by light grey limestone, all belonging to the Niagara formation.* (See GEOLOGY OF CANADA, p. 334).

60. *Reddish syenitic gneiss composed of red orthoclase and white quartz with a small quantity of green hornblende.*

This area appears to be occupied by massive crystalline dark green diorites, but its central portion has not yet been explored. See Geological Survey Reports 1872, pages 123, 125 and 126; 1875, pages 302 and 312, and 1877, page 37 C.

LAKE SUPERIOR

Michipicoten Island

LOWER LAKE ABITIBI

UPPER LAKE ABITIBI

Lake Temiscamang

PHOTO-LITH BY THE BURLAND-LITH CO MONTREAL